Instructions For Teacher In Charge/Parent/Guardian Submitting the Final Essays:

1. This opportunity is open to all students in India who are in grades 5 to 10. Essays will be divided in two groups: grades 5 to 7 and 8 to 10.
2. Communication skills are an important part of being a scientist. Spelling and grammar will be considered, in addition to the ideas expressed in your essay.
3 . **Date of Videoconference** which is planned to be held in december (our request for this date is awaiting approval from Cassini Outreach, JPL, NASA) .
6. **Dress Code** may be suggested Organizers /Special T-Shirt at cost may be printed.
7. The winning Schools will participate videoconference with Cassini scientists (depending on the conferencing technology made available Organizers)
i. Indirect (Winner ask question and Mission Scientist reply in video)
ii. Directly (Involving ex NASA Scientist)
8. The decision of the judges Communicated by National Coordinator is final.
9. **Submission of Essays :** should be delivered to

For Students:

1. Write an essay (500 words maximum) explaining which one of the three possible imaging targets you chose, and explain why.
2. Suggestions: i). Try reading all the Material given. Don't miss to read Set 1 & Set 2 and Science Objectives of your Target.
ii). You can Work/write your essay based on the hidden clues suggested in the Description or Transcripts of Videos or the questions asked in the target to be chosen by you. You can also use Actual Mission Objectives or Science Objectives Info regarding Mimas, Tethys, Prometheus etc.. mostly which is available in Set 3 for some targets.
3. All submissions must be students' original work. Each student can submit only one entry selecting only one Target .

4. Attach Separate page with following information:
i. Target Chosen: With Title and Target No.
ii. Name of the Student & Father Name along with Phone/Mobile No.
iii. Summary in 50 -75 Words.
iv. Name of School with Phone No. – In charge Teacher
The names and contact information, Summary of 50-75 words above will NOT be included in the word count for the 500-word essay.
5. Participants agree to assign copyright to JPL so that JPL and NASA can post the essays, as excerpts or in their entirety, on NASA Web sites.

JTIKUT 4

NASA'S CASSINI SCIENTIST FOR A DAY
CASSINI PEOPLE OUTREACH DEPARTMENT, JPL, NASA
PLANETARY SOCIETY, INDIA (National Point of Contact)

Name : M. BHARATH

Class: VII **Section :** C

School : KENDRIYA VIDYALAYA NO. 1 . TIRUPATI **In charge Teacher :** M. SHYAM SUNDER

Principal/Correspondents Name: MR. V. SRIDHARAN

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Father's/Guardian Name : M. NADHAMUNI NAIDU

Designation: LEATHER TECHNITIAN

Office Address: -

Phone: 09244380 21 **Mobile :**

Declaration

I/We agree to assign copyright to JPL so that JPL and NASA can post the essays, as excerpts or in their entirety, on NASA Web sites. I/We agree if selected would attend the Videoconference fulfilling necessary requirements as and when stated by the Society.

Thanking you

Students Name : M. BHARATH Father/Guardian's Name: M. NADHAMUNI NAIDU

Signature : Signature:

Note : Society welcomes Interested Parents/Individuals/Govt/Private organizations to assist society 1. to raise support/sponsorship for various expenses in their Official/Personal capacity. 2. Lend time/expertise for organizing the Videoconference. Email: planetarysocietyindia@gmail.com

Best in Category
Review.

TARGET - TARGET NO. 1.

SATURN AND IT'S RING'S

NAME - M. BHARATH

CLASS - VII

FATHER'S NAME - M. NADHAMUNI NAIDU

PHONE NO - —

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NAME OF THE SCHOOL - KENDRIYA VIDYALAYA NO. 1. TIRUPATI

PHONE NO - 0877 - 2231457 (School)

INGHARGE TEACHER - Mrs. G. Sandya rani

3. CASSINI : MANEUVERING SATURN AND ITS RINGS

➤NAME :

➤FATHER'S NAME :

➤MOBILE NUMBER :

➤Summary :

Cassini has made many interacting maneuvers. The rings contain different sized particles. The gravitational pull of saturn may result in spokes. We may find a new moon of saturn on which there may be possibilities for life. We can observe whether a solar eclipse can occur or not. We can study the belt /zone structures/variations in ammonia concentration. We can determined temperature field, temperature gradient and many interesting things when this target is selected.

KENDIYA VIDYALAYA NO.1 TIRUPATI

PH.NO- 2231457 - M. SHYAM SUNDER

Cassini has made many interesting maneuvers so far and is about to choose an observation for upcoming experi-ment. The planet saturn is a spectacular one among all other planets in our solar system. The rings add more flavour to its beauty. These rings are categorised into, namely A, B, C, D, E, F, G rings. Theser rings have many unsolved mysteries and discoveries inside them, to solve them Cassini's wide Angle camera shot has to be cast on saturn's ring.

The rings when observed deeply it is nothing but combination of millions and millions of orbiting particles and many moons in its rings itself, also they are combination of water from eruptions on Enceladus, besides has many icy and rocky materials, which are sized from size of sugar particles to the size of a large house.

The rings probably are formed due to one or more moons breaking down due to their collisions with comets or meteorites. We observe differences in their movement around saturn and also can determine from their obits. Changes associated with saturn can also be noted and their influence on the rings is determined. We may find whether, magnetic flux or fields created at different instants by saturn, effects the path of materials in the rings. The variation of Gravitational pull from place to place may also be the reason for formation of spokes, which can be found by camera shots sent by Cassini.

When observations are made on rings, many

collisions may occur and we will have many observations to be carried out on the impact of collision on the neighbouring particles and on the nearest moon etc. We may come across new material particles which may contribute for dust or water or any other materials in the rings system of saturn. The composition of dust particles is found and can study belt/zone structure variations in ammonia concentration. We can observe the impact of cyclones or storms, generated on saturn, on the rings and its nearest particles. We may also note whether the dust particles from the dust storms escape saturn's gravity and reach the rings. We can also determine temperature field, cloud properties and composition of saturn's atmosphere as well.

There is a probability of finding a new moon of saturn on which these are possibilities for existence of life-like conditions. It would reveal the reality of how the spokes are formed. if we study the relationship and variations between ionosphere and the planets magnetic field and their influence on the particles of the rings. We can observe whether solar eclipses take place due to different sized particles of the rings. If any occurs we may take out many observations at equinox to find answer to many mysteries, which may also help us to determine temperature gradient and unknown subcloud longitudinal structures at equator to pole. This way it is best to choose saturn's rings as our target for observation.